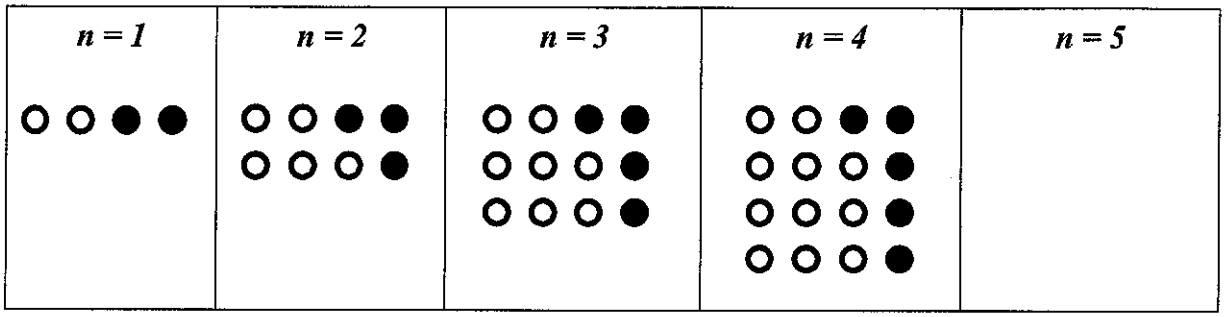
Name _____

Date _____ Block ____

Sequences and Equations (revisited)

1. These dot diagrams show the beginning of a sequence of patterns:

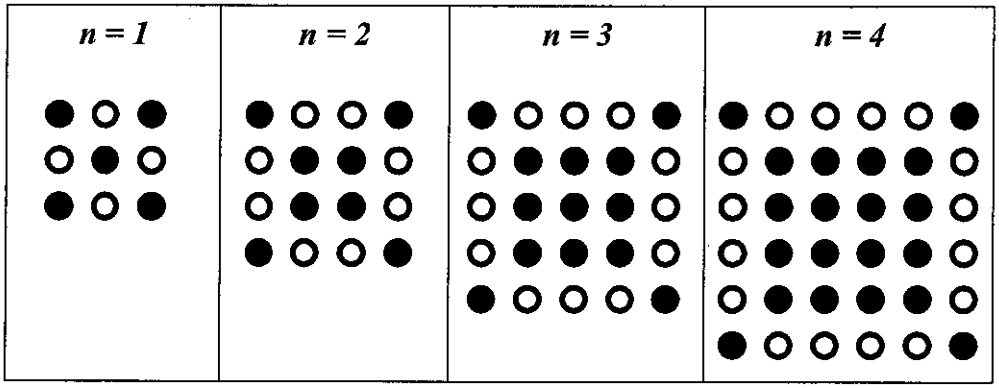


(a) Draw the fifth pattern in the sequence in the space above.

(b) The number of black dots in the *n*th diagram is given by the expression: $n+1$.
Write algebraic expressions for the number of white dots and for the total number of dots:

Number of white dots		Number of black dots		Total number of dots
.....	+	$n+1$	=	.....

2. These dot diagrams show the beginning of another sequence of patterns:



(a) Complete the equation below with algebraic expressions for the number of white dots, number of black dots, and total number of dots:

Number of white dots		Number of black dots		Total number of dots
.....	+	.....	=	.....

(b) Rewrite the expression for the total in its simplest, factorized form, if you haven't done so already.

.....

.....

Card Set: Blank Cards

Now make up two sequences of your own:

$n = 1$	$n = 2$	$n = 3$	$n = 4$

$n = 1$	$n = 2$	$n = 3$	$n = 4$

White		Black		Total
	+		=	

White		Black		Total
	+		=	